

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1. (Currently amended) A system that electronically controls a physical operation of dangerous equipment comprising:
 - an electronic key that stores electronic key data separately from the dangerous equipment, the electronic key data comprises at least one of key holder identity information, key holder task, and estimated time to complete the key holder task;
 - an electronic key reader that reads the electronic key data from the electronic key, the electronic key reader performs at least one of logging electronic key data, logging times when the operation of the piece of dangerous equipment is disabled, logging times when the operation of the piece of dangerous equipment is enabled, logging electronic key holder medical information, logging electronic key holder tasks, logging electronic key holder identity, scheduling dangerous equipment operation, scheduling related equipment operation and performing electronic data interchange;
 - an electronic key data analyzer that is associated with the electronic key reader, the electronic key data analyzer analyzes the read electronic key data by determining parameters for disabling the dangerous equipment and generates disconnect control data based, at least in part, on the electronic key data; and
 - a disconnector that is associated with the electronic key data analyzer and the dangerous equipment, the disconnector disables and re-enables operation of the dangerous equipment, based at least in part on the disconnect control data.
2. (Previously presented) The system of claim 1, the disconnector further disables operation of the equipment based on a physical lock.
3. (Cancelled)

4. (Previously presented) The system of claim 1, further comprising a display, the display presents information related to at least one of technical manual data, schedule data, equipment identification data, equipment status information and safety manual data.
5. (Previously presented) The system of claim 1, the electronic key data comprises at least one of key identifying information, key holder medical information, key holder equipment access permissions, key holder equipment qualifications, key holder supervisor contact information, key holder security information.
6. (Previously presented) The system of claim 1, the electronic key reader obtains the electronic key data *via* at least one of reading a magnetic strip on an electronic key inserted in the electronic key reader, receiving a radio frequency signal from an electronic key in transmission range of the electronic key reader and reading digital data from an integrated circuit memory chip on an electronic key.
7. (Previously presented) The system of claim 1, the disconnector controls the flow of at least one of electricity, air, water and hydraulic fluid to the dangerous equipment.
8. (Previously presented) The system of claim 1, further comprising a computer network, the computer network is coupled to one or more electronic key readers, one or more electronic key data analyzers, one or more disconnectors and one or more pieces of dangerous equipment, the computer network conveys a signal between one or more of the electronic key readers, the electronic key data analyzers, the disconnectors and the dangerous equipment.
9. (Previously presented) The system of claim 8, the signal comprises at least one of electronic key data, electronic key data analysis data, equipment data and disconnect control data.
10. (Previously presented) The system of claim 8, further comprising one or more additional disconnectors that disable operation of one or more additional pieces of dangerous equipment based on a physical lock.

11. (Cancelled)

12. (Previously presented) The system of claim 8, further comprising a display, the display presents at least one of technical manual data, schedule data, equipment identification data, equipment status information and safety manual data.

13. (Previously presented) The system of claim 8, the electronic key data comprises at least one of key identifying information, key holder identity information, key holder medical information, key holder equipment access permissions, key holder equipment qualifications, key holder supervisor contact information, key holder security information and key holder task.

14. (Previously presented) The system of claim 8, the electronic key reader obtains the electronic key data *via* at least one of reading a magnetic strip on an electronic key inserted in the electronic key reader, receiving a radio frequency signal from an electronic key in transmission range of the electronic key reader and reading digital data from an integrated circuit memory chip on an electronic key.

15. (Previously presented) The system of claim 8, the disconnector prevents the flow of at least one of electricity, air, water and hydraulic fluid to the dangerous equipment.

16. (Previously presented) The system of claim 15, further comprising a central station interfaced with the computer network, the central station that disables the operation of one or more pieces of dangerous equipment and re-enables the operation of one or more pieces of dangerous equipment, based, at least in part, on one or more pieces of electronic key data and/or one or more pieces of disconnect control data.

17. (Previously presented) The system of claim 16, the central station performs at least one of logging electronic key data, logging times when the operation of one or more pieces of dangerous equipment is disabled, logging times when the operation of one or more pieces of dangerous equipment is enabled, logging electronic key holder medical information, logging electronic key holder tasks, logging electronic key holder identities, scheduling dangerous equipment operation, scheduling related equipment operation and performing electronic data interchange.

18. (Currently amended) A computer readable medium that stores computer executable components of a system that electronically controls a physical operation of dangerous equipment, the system comprising:

an electronic key reading component that reads electronic key data stored on an electronic key remote from the dangerous equipment, the electronic key data comprises at least one of key holder identity information, key holder task, and estimated time to complete the key holder task;

a logging component that logs information concerning at least one of the electronic key data, the electronic key reading component, the electronic key data analyzing component, the disconnect control data and the disconnecting component;

an electronic key data analyzing component that analyzes the electronic key data by determining at least an optimal time to disable the dangerous equipment and produces a disconnect control data; and

a disconnecting component that disables and re-enables the operation of a piece of dangerous equipment, based at least in part on the disconnect control data.

19. (Cancelled)

20. (Currently amended) The computer readable medium of claim 19 18, further comprising a scheduling component that schedules the operation of one or more pieces of dangerous equipment.

21. (Previously presented) The computer readable medium of claim 20 further comprising an EDI component that performs electronic data interchange.

22. (Previously presented) The computer readable medium of claim 21 further comprising a central station component that performs at least one of logging, scheduling and EDI for one or more electronic key reading components, electronic key data analyzing components and disconnecting components.

23. (Currently amended) A data packet adapted to be transmitted from a first computer process to a second computer process, comprising:

disconnect data related to at least one of disabling and re-enabling one or more pieces of dangerous equipment, the disconnect data generated by a key analyzer in response to analysis performed on one or more pieces of electronic key data read from an electronic key by an electronic key reader and the status of one or more pieces of dangerous equipment; and

logging data associated with at least one of electronic key data, the disconnect data and the dangerous equipment operation.

24. (Currently amended) A method that electronically controls a physical operation of dangerous equipment comprising:

collecting electronic key data stored separate from the dangerous equipment on an electronic key, the electronic key data comprises at least one of key holder identity information, key holder task, and estimated time to complete the key holder task;

obtaining a status of the dangerous equipment;

locally analyzing the electronic key data and producing disconnect data based, at least in part, on the analysis of the electronic key data and the status of the dangerous equipment; and

locally logging data associated with at least one of the collected electronic key data, the disconnect data and the dangerous equipment operation; and

locally controlling the operation of the dangerous equipment based, at least in part, on the disconnect data.

25. (Cancelled).

26. (Currently amended) The method of claim ~~25~~ 24, further comprising:

locally scheduling the operation of one or more pieces of dangerous equipment based, at least in part, on at least one of the logged data, the electronic key data and the disconnect data.

27. (Original) The method of claim 26, further comprising locally engaging in or more electronic data interchanges.

28. (Original) The method of claim 24 further comprising locally displaying at least one of technical manual data, schedule data, equipment identification data, equipment status information and safety manual data.

29. (Previously presented) A method that electronically controls a physical operation of dangerous equipment comprising:

collecting electronic key data saved on an electronic key unconnected from the dangerous equipment, the electronic key data comprises at least one of key holder identity information, key holder task, and estimated time to complete the key holder task;

centrally analyzing the electronic key data by determining at least an appropriateness of disabling the dangerous equipment to produce disconnect data based, at least in part, on at least one of the electronic key data, a status of one or more pieces of dangerous equipment, a status of one or more pieces of related equipment and an identity of the dangerous equipment; and

centrally logging data associated with at least one of the collected electronic key data, the disconnect data and the dangerous equipment operation; and

centrally controlling the operation of at least one of one or more pieces of dangerous equipment and one or more pieces of related equipment based, at least in part, on the disconnect data.

30. (Cancelled)

31. (Currently amended) The method of claim ~~30~~ 29, further comprising:
centrally scheduling the operation of at least one of one or more pieces of dangerous equipment and one or more pieces of related equipment based, at least in part, on at least one of the logged data, the electronic key data and the disconnect data.

32. (Original) The method of claim 31, further comprising centrally engaging in or more electronic data interchanges.

33. (Previously presented) The method of claim 32, further comprising centrally displaying at least one of technical manual data, schedule data, equipment identification data, equipment status information and safety manual data.

34. (Currently amended) A system that electronically controls a physical operation of dangerous equipment comprising:
means for reading electronic key data from an electronic key, the electronic key stores the electronic key data separate from the dangerous equipment and the electronic key data comprises at least one of key holder identity information, key holder task, and estimated time to complete the key holder task;
means for analyzing the electronic key data, the means for analyzing the electronic key data determining at least a technique for disabling the dangerous equipment;
means for producing disconnect control data based, at least in part, on the electronic key data; **and**
means for logging data associated with at least one of the collected electronic key data, the disconnect data and the dangerous equipment operation; and
means for disabling and re-enabling operation of the dangerous equipment, based at least in part on the disconnect control data.